

STATEMENT OF WORK

FOR

ARCHITECT-ENGINEERING (A-E) SERVICES
TO SUPPORT
ENVIRONMENTAL PROGRAMS WORLDWIDE

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CONTRACT SECTION C -- STATEMENT OF WORK

For Architect-Engineering (A-E) Services to Support Environmental Programs

PART A – INTRODUCTION

This statement of work (SOW) defines requirements for A-E services in support of the Air Force Civil Engineer's environmental program area. Place of performance shall be at various government installations in the United States, at various overseas government locations, at government territorial possessions, at Defense Logistics Agency (DLA) fuel facilities worldwide, and at other worldwide locations of interest to the government that could include contingency operation, remote, austere and/or hostile locations.

In carrying out each work assignment issued as a Task Order (TO) under the basic contract, the Contractor shall furnish the personnel, services, equipment, materials, facilities, and other requirements necessary for, and incidental to, the performance of work set forth herein.

For projects in a contingency operation location the Contractor shall be capable of providing all essential life support for AFCEE, U.S. Government personnel, and/or their representatives (including specialized consultative support service representatives) at remote, austere, and/or hostile locations worldwide. Life support shall include security, personnel, training, supplies, equipment, information technology (including, but not limited to, computers, networks, databases, World-Wide-Web service, and related incidentals) and infrastructure (including, but not limited to, potable water, utility systems, housing, dining, transportation, and medical care) as there may be no U. S. Government facilities and/or services available.

Primary technical services shall be performed by individuals who are credentialed members of architectural, planning, science, and engineering professions. Disciplines include, but are not limited to, architects, landscape architects, engineering disciplines typically associated with environmental engineers and scientists, planners, cost estimators, Computer Assisted Design and Drafting (CADD) technicians, publication writers/editors, technical writers, graphic artists, and Geographic Information System (GIS) analysts. Generally, a credentialed professional (a) is licensed (e.g., registered professional engineer) to practice in the state where a facility is located and (b) commands the necessary expertise, in terms of knowledge and experience, to undertake the specified task. An environmental professional's specific expertise may be evinced through the following certifications: DEE, CHMM, QEP, CIH, AICP.

1.0 GENERAL SCOPE

1.1 Architectural-Engineering Services

1.1.1 Title I Services

Services related to a specific construction project and consist of conducting field surveys and investigations to obtain design data and preparing contract plans, specifications, cost estimates, and estimated construction periods of performance. Title I services may include all aspects of design of environmental remediation systems such as preparation and/or review of contract plans, specifications, scheduling, cost estimates, commissioning services and preparation of operating and design manuals. Title I efforts also encompass those efforts required to support and develop design work, including planning and programming, program management, project scoping, studies, investigations, evaluations, consultations, conceptual design, value engineering, and operation, monitoring, topographic survey services, optimization of environmental treatment or control systems, and infrastructure systems.

1.1.2 Title II services

Services related to a specific construction project and consist of supervision and inspection of construction. Title II services may include all aspects of construction quality assurance and oversight of environmental projects.

1.1.3 Other A-E Services

Services are design- and construction-related, but are not connected with a specific environmental project. The services may consist of developing environmental related design criteria, fact finding studies, surveys, investigations, and the performance of environmental projects involving prevention, compliance, and restoration when the services of registered architects or engineers are required. Excluded are services that need not be performed by a registered engineer or architect such as providing design and construction equipment or computer programs.

These efforts include advanced planning, programming, studies, investigations, sustainability and documentation, resource conservation, interior design services, leak detection surveys and assessments, energy studies, and other services not associated with a specific environmental project.

Services may include, but are not limited to, gathering, analysis, processing, and manipulation of various types of geospatial data and the integration of that data to provide decision support tools such as maps, drawings, and population of existing databases.

These services include, but are not limited to, support necessary for the implementation of restoration, pollution prevention, compliance, and conservation environmental projects. These efforts include planning and programming, program management, scoping, studies, operations support (including data gathering and permit preparation), investigations (including geophysical), EMS and compliance assessments, evaluations, consultations, conceptual design, value engineering, as well as operation, monitoring, and optimization of environmental treatment

or control systems. Also included are other related services for the continuation of an existing environmental program or to establish an initial environmental program.

1.2 Program Requirements for A-E Services

A-E Services will be performed in support of key program and/or project areas for the Air Force Civil Engineer.

1.2.1 Environmental

1.2.1.1 Environmental Restoration.

Assist in various activities to support the Environmental Restoration mission, including support for the Military Munitions Response Program (MMRP). Major activities supported include, but are not limited to, preliminary assessments, site investigations, compliance restoration projects, remedial investigation, feasibility studies, remedial design, validation and/or review of long-term maintenance and/or long term monitoring (LTM) operations plans, and Remedial Action Operation (RA-O) design and optimization. All restoration activities shall assess the use of Green and Sustainable Remediation (GSR) practices to the fullest extent without reduction in human health and environmental protection. Interim remedial actions (IRAs) may be infrequently required to reduce or limit an immediate threat to human health or the environment. In addition, support includes technical oversight of environmental programs, integration of environmental management system (EMS) approach into the management of environmental programs, laboratory quality assurance assessments, document reviews, assistance in selecting remediation technologies, and support for emerging contaminants and technologies.

1.2.1.2 Conservation, and Environmental Planning and Programming.

Support various activities to support the Environmental Conservation and Environmental Planning mission. Major activities include, but are not limited to, support on Environmental Impact Analysis Process (EIAP) and planning, National Environmental Policy Act (NEPA) natural infrastructure assessment and management, environmental management systems (EMS), natural and cultural resource programs, comprehensive planning programs, and Air Force geointegration. In addition, support includes environmental impact statements, baseline surveys, land use plans, forestry, wildlife, archeology, Native American consultations, transportation, airspace and range management, and noise programs. Activities must support and be directly related to or associated with real property activities. Single actions not associated with real property activities will not be accomplished as standalone contract actions under this scope.

1.2.1.3 Environmental Quality.

Support the Environmental Quality mission. Major activities supported include compliance and pollution prevention programs, environmental education and training, sustainable development, and environmental management systems.

1.2.2 Other Areas of Essential Support:

The Contractor shall be capable of addressing and interpreting all aspects of design and environmental laws and regulations, including the preparation and presentation of expert testimony; if required. Some tasks may require access to or the review of classified material

(requiring the contractor to provide personnel with specified security clearances), as identified in the specific task order. Some tasks may require planning and logistical support, to include on-site translation and/or interpretation, at various meetings and conferences worldwide.

PART B – ADMINISTRATIVE AND MANAGERIAL REQUIREMENTS

The Contractor shall provide management, planning, performance measurement and cost status reporting pertinent to the performance of the requirements identified in the TO.

2.0 APPLICABLE DOCUMENTS

Comply with all applicable (1) federal, state, and local environmental statutes, instructions, manuals, handbooks, regulations, guidance, policy letters, and rules (including all changes and amendments), and (2) Presidential Executive Orders in effect on the date of issuance of the TO, including Unified Facilities Criteria (UFC) and Unified Facilities Guide Specifications (UFGS). For work at overseas locations, the Contractor shall also comply with all applicable host nation statutes and agreements. In addition, the Contractor shall refer to the AFCEE Technical Services Quality Assurance Program, Guidance for Contract Deliverables (GCD), current version, unless otherwise specified. This GCD is a reference document to be used in the generation of contract deliverables. Installation or location-specific documents shall be identified in individual task orders. The Contractor shall be responsible for identifying and complying with all applicable requirements as they pertain to the individual project requirements of each task order.

3.0 TASK ORDER MANAGEMENT, PLANNING, AND REPORTING SERVICES

Contractors shall plan project activities, including the development, implementation, and maintenance of project schedules, events, status of resources, report(s) on the activities, and progress toward accomplishing project objectives. Document for government review and approval the results of the project efforts for the TO.

3.1 Project Web Site

The Contractor shall establish a project web site with real-time worldwide access available to government personnel. The web site may include, but is not limited to, a deliverable tracker, a Request for Information (RFI) tracker, a photo log, project schedule, and project status for the construction TO. The web site shall be tailored to this project. Information Assurance (IA) requirements for DoD information systems and/or data storage must meet the Technical security requirements of the DoD/AF environment and is the responsibility of the service provider to meet the mandates defined in Department of Defense Instructions (DoDI) 8510.01 dated 28 Nov 07. Responsibility for procedural and administrative security is shared between the service provider and the supported entity contracting for the service and must meet the Defense Information System Agency (DISA) Best Security Practices. (Contract Data Requirements List [CDRL] A001)

3.2 WBS Requirements

Prepare and submit for approval a Work Breakdown Structure (WBS) as posted in the 4P A-E 13 Guidance and Resource List or as specified in the TO. The WBS shall be used to report the cost and schedule status for this project. All tasks required under the TO shall be included in the WBS. (CDRL B001)

3.3 Schedule and Planning Requirements

Provide schedules for tracking work progress as specified in the TO. The SOW for specific TOs will indicate which of the following schedules is required. Project Planning Charts (PPCs) are recommended for less complex projects and Integrated Master Schedules (IMSSs) are recommended for more complex projects.

3.3.1 Project Planning Chart (PPC)

The Contractor shall prepare and submit a PPC for approval. The PPC shall detail the project schedule and status through the use of Gantt charts, which shall depict percent complete for this task. Schedule activities shall be reported by the approved WBS. (CDRL B002)

3.3.2 Integrated Master Schedule

Prepare and submit an IMS for approval. The IMS shall detail the project schedule and status through the use of Gantt charts and Critical Path Method (CPM) analyses. Schedule activities shall be reported by the approved WBS. (CDRL B003)

3.4 Cost and Status Reporting

Provide progress and cost reports as specified in the TOs. Cost and status reports are listed below in order of increasing complexity. The individual TO will specify (1) if one or two of the following reports are required; and (2) if reports are required at the TO level or at the project level with a TO rollup. Contractor's Progress, Status, and Management Reports (CPSMRs) with cost information are recommended for TOs under \$500,000. TOs over \$500,000 typically require (1) a CPSMR and (2) either a Performance and Cost Report (PCR) or a Funds and Man-Hours Expenditure Report (FMER). The TO will be evaluated independently to determine specific requirements.

3.4.1 Contractor's Progress, Status, and Management Report

Prepare and submit a CPSMR. The CPSMR shall be used to review and evaluate the overall progress of the project, along with any existing or potential problem areas. The CPSMR shall include a summary of the events that occurred during the reporting period, discussion of performance, identification of problems, proposed solutions, corrective actions taken, and outstanding issues. Cost information may be included or omitted in this report as required in the TO. (CDRL B004)

3.4.2 Performance and Cost Report

Prepare and submit a Performance and Cost Report (PCR). The PCR provides the current status and projected requirements for funds, man-hours, and work completion relative to the negotiated budget. (CDRL C001)

3.4.3 Funds and Man-Hours Expenditure Report

Implement and maintain a cost accounting system and prepare a Funds and Man-Hours Expenditure Report (FMER) to correlate the status of expensed funds and man-hours against the progress of the work completed and the negotiated budget. The FMER and associated graphics shall detail the current project status and identify funds and man-hours required to complete the assigned tasks. (CDRL C002)

3.5 Photo Documentation

Prepare digital photo documentation. Include photo documentation of site(s) and building(s) under investigation, field activities, and sample locations. Photography of any kind must be coordinated through the installation, customer, or facility Point of Contact (POC). (CDRLs B005)

3.6 Task Order Scoping

Perform TO scoping and plan development services. Specifically, complete site and easement surveys. Conduct site surveys to enable preliminary scoping of project issues and to develop and/or confirm contractor-established Data Quality Objectives (DQOs). Visit the assigned site(s) and make all preliminary studies of the site/facility locations and accessibility; number of project locations; number and type of personnel required; number and type of site(s) and supporting data desired; special or modified project capabilities, issues, and procedures required; equipment required; and type of procedures to ensure that the project activities comply with applicable requirements. For easement surveys, utilize a registered land surveyor to identify all project easement locations. Prior to performing any off-base fieldwork or project activities, conduct a survey to determine the closest property line. After project activities, locate easements from the closest property line. Establish permanent easement boundaries and provide a metes and bounds description and plot plan for each easement site. For work outside of the United States, provide an equivalent property description consistent with local laws, ordinances, or regulations. (CDRLs A001, A002)

3.7 Environmental Resources Program Information Management System (ERPIMS) Data Management

The contractor shall submit an ERPIMS Data Submission Schedule which will be used to establish the framework for ERPIMS data submissions. The Contractor shall record and enter field and laboratory data and submit this data as specified in the latest ERPIMS Data Loading Handbook (DLH) using the latest version of the ERPIMS software utility (ERPTools). The AFCEE website offers the latest DLH, ERPTools client software, ERPIMS policy, Help Desk contact info, data submission requirements, ERPTools training schedules, and more. Data submissions shall be error-free, pass all validation checks and fully comply with the ERPIMS

DLH. The Contractor shall ensure that any required corrections are accomplished within both the task order period of performance and funding. The Contractor shall utilize the latest version of the ERPTools software to input/submit data for validation, import and submission. Questions with regard to ERPTools software and training can be addressed to the ERPIMS Help Desk. (CDRLs B006A, B006B).

3.8 Meeting and Conference Services

3.8.1 Meeting/Teleconference Support

Attend and/or support meetings and teleconferences as required by the Contracting Officer's Representative (COR) with the customer and/or government representative(s). The purpose of the meetings include, but are not limited to, contract discussions, progress reviews, project scoping, planning, design reviews, planning/programming charrette activities, project definition charrette activities, design charrette activities, construction reviews, project status, and the general exchange of information concerning current and future activities. When specified in the TO, the Contractor shall participate in and/or facilitate on-site meetings. (CDRLs B007, B008, B009)

3.8.2 Public Meetings and Hearings

Present technical information and provide logistical support (e.g., facilities, audiovisual, handouts, report(s), recordings, verbatim transcripts, translations, slides, synopsis) for events and/or meetings in support of the government's position. (CDRLs B007, B008, B009)

3.8.3 Conference and Event Support

Develop conference programs, training sessions, and arrangements for government sponsored conferences and events in support of environmental and traditional construction programs. (CDRLs B007, B008, B009)

3.9 Regulatory/Professional Interface

Assist with oral/written interaction with interested parties related to the project. Forums may include administrative proceedings, judicial proceedings, formal meetings, or informal meetings. Requirements include, but are not limited to, presentation materials, agendas, minutes, publications, news releases, public notices, and the maintenance of mailing list(s).

Assist in project technical review, analysis, and discussions to integrate comments from interested parties on programs and related data and studies. Develop options for responses and prepare report(s) to communicate government priorities to regulatory agencies and other interested parties.

Assist with the review and interpretation of new statutory and regulatory requirements and make recommendations for government facility planning and policy integration as it applies to the assigned project. (CDRLs A001, B008, B009, B010)

3.10 Notification Requirements

The Contractor is required to notify the Contracting Officer (CO) and COR of critical issues that may affect the contract performance and/or human health and the environment. The types of issues that require notification include, but are not limited to, health risks, spills, unexpected utility crossings, unusual weather conditions, unacceptable materials, changes in critical personnel, and Unexploded Ordnance (UXO). As an example, if unanticipated UXO was discovered during field activities, the Contractor would be required to immediately stop work, report the discovery to the base POC and COR, and implement the appropriate safety precautions. Commencement of field activities could not continue until clearance was received from the CO. On critical issues, oral notification should be made immediately, followed by written notification as soon as practical. (CDRL A003)

3.11 Work Site Coordination

Coordinate work site activities to ensure the protection of human health and the environment; the prevention of damage to property, utilities, materials, supplies, and equipment; and the avoidance of work interruptions. Provide physical security to the work area with security equipment and personnel as specified in the specific task order.

The Contractor must conduct work in compliance with the installation environmental policy, in accordance with installations EMS, and respective to the installation's significant aspects and environmental action plans (EAPs). The Contractor must comply with Occupational Safety and Health Administration (OSHA) safety and health regulations and local safety office requirements. The Contractor is required to provide the CO copies of any OSHA report(s) or host nation safety and health report(s) submitted during the duration of the TO. For work at overseas locations, the Contractor must comply with host nation laws and regulations regarding safety and health including the U.S. Army Corps of Engineers (USACE) Safety and Health Requirements Manual, EM 385-1-1. (CDRL A004)

Specifically, coordinate work site activities with applicable existing base or area operations. Examples of the offices/departments that the Contractor shall coordinate activities with include, but are not limited to

Transportation	Planning
Police/Security	Utilities
Hazardous Materials Operations	Permitting
Fire Department	Pass and Identification
Safety	Facility Management
Base Civil Engineer	Local Reuse Authority
Public Works	Field Operations

Local and State Regulators	Federal Regulators
Off Site Emergency Facilities Bioenvironmental	Communications
Federal Aviation Administration	Installation EMS Coordinator

3.12 Spatial Data (Map) Requirements

All products associated with this contract that provide a map representation of the location of installation features (historical, existing, or planned) including installation maps, site plans, area development plans, walls-out as-built depictions, or other related overhead (plan) views of an installation (partial or entire) must adhere to the following requirements. (NOTE: This requirement does not currently involve walls-in facility floor plans or interior renderings.)

All maps and associated data must comply with the latest version of Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) available from the SDSFIE web site. The SDSFIE web site address will be provided under separate cover at the task order level. These data will be organized using the current version of the standard approved by the Headquarters Air Force Geo Integration Office (HAF GIO) as the functional lead for installation mapping and visualization. The SDSFIE will determine file and feature class identification and definition, attribution and valid domain values. When any geospatial information collected as a result of the contract includes information identified in the Common Installation Picture (CIP) or recognized Mission Data Set (MDS) the contractor will deliver data consistent with the established requirements for the data and will ensure functionality with the receiving system. Information must be collected at no less than 1:1200 scale for base cantonment areas and 1:4800 scale for larger undeveloped base areas. Spatial data will meet or exceed National Map Accuracy Standards at those scales. Metadata will be provided and will use Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata (CSDGM) for organization.

Geospatial data must be delivered in a geo-referenced GIS (Geographic Information System) format (feature-based file structures with one-to-one cardinality between spatial records and attribute records) which would include Environmental Systems Research Institute's (ESRI) shapefile and geodatabase formats. All attribute data as specifically outlined in the task order contract must be included either in the GIS data file or as a separate table with a SDSFIE key variable that may be used to relationally join the separate table with the GIS data file. All geospatial data must be delivered in the North American Datum 1983 (NAD83) projection, State Plane Coordinate System, using feet or metric coordinate units. Further guidance on mapping units, coordinate systems and projections is available from the Installation GIO.

Mapping- or Survey-Grade Global Positioning Systems (GPS) or comparable traditional survey methods will be used to collect geospatial data. The use of mapping- or survey-grade GPS will depend on the precision requirements of the product data. These requirements will be specified

later in this SOW for all contract activities where geospatial data are involved. In the case of contracts involving utility construction, location and attribute data will be obtained at the time of excavation. Further information about precision requirements should be obtained from the installation GIO.

Source data and product data remain the property of the US Government. The Contractor may be required to explain and demonstrate the company's process for protecting all geospatial data, including but not limited to geometry, attributes, metadata, topologies, and relational database schemas and operations used in association with this SOW. The Contractor may be required to sign a non-disclosure agreement attesting to the same before source data are released. Further information about security and nondisclosure requirements should be obtained from the installation GIO. Some installation map data, source and/or product, may be considered by the government to be "sensitive, but unclassified." The intent of this clause is to prevent intentional or unintentional dissemination of "sensitive, but unclassified" information to include unauthorized access to the source and product data by any entity wishing to do harm to the USAF or United States Government while the data resides on the contractor's computer network. The contractor is not authorized to release this information to any third party without the explicit consent of the Headquarters Air Force Office of the Civil Engineer (AF/A7C) or its involved installation. All source information must be returned to the government POC or destroyed upon completion of this project. Special requirements for handling classified map data, if applicable, will be addressed elsewhere in this SOW. (CDRL A005, A006)

4.0 TASK ORDER PROJECT PLAN DEVELOPMENT SERVICES

Project and/or site-specific planning documents and development requirements may be required under the TO. Plans must comply with the specifications, procedures, and methodologies (such as approved Federal Facilities Agreements [FFAs]) in the site/project specific plan(s). Project plans may include any of the following as appropriate to the TO. The COR shall approve (in writing) any proposed modification to, or deviation from, any activity described in these documents, following approval by the CO.

4.1 Quality Program Plan (QPP)

4.1.1 General

The QPP shall include the Work Plan (WP) and the Health and Safety Plan (HSP) (as required by 29 Code of Federal Regulations (CFR) 1910.120), and the Construction Quality Plan (CQP). This section shall be tailored to meet current customer and regulatory requirements in the TO.

4.1.2 Work Plans (WPs)

Prepare WPs to comply with Department of Defense, Air Force, United States Environmental Protection Agency (USEPA) (epa.gov/quality), state, host nation, and local regulations regarding the proposed work effort. Prepare test plan(s), including cost estimates. Specific WPs to conduct site activities and analysis as part of future projects may also be specified. Restoration sampling and analysis WPs shall be prepared in accordance with the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP). The UFP-QAPP Worksheets shall be used, unless regulations or formal agreements require a different format. If the UFP-QAPP Worksheets

are not used, a crosswalk (Worksheet 2) shall be used to document that all required elements of the UFP-QAPP are present in the WP. (CDRLs A007, A008, A009, A010)

4.1.3 Health and Safety Plan (HSP)

Prepare an HSP to comply with Air Force, OSHA, USEPA, state, host nation, and local health and safety regulations regarding the proposed work effort. Utilize to the fullest extent possible any existing related HSP, tailored specifically to the current effort. For work at overseas locations, the HSP shall be prepared to apply the USACE EM 385-1-1 following host nation laws and regulations. Applicable components of 29 CFR 1910.120 shall be addressed using host nation laws and regulations. Use USEPA or host nation guidelines, whichever is more stringent, for designating the appropriate levels of protection needed at the study site(s) as applicable. Maintain written certification that the approved HSP has been reviewed with all personnel that work at the project site prior to their mobilization. (CDRL A008)

4.1.4 Sampling and Analysis Plan (SAP)

Prepare a SAP. The SAP shall consist of both an FSP and a QAPP. If an installation-wide SAP has already been prepared, the TO may require the preparation of project/site specific addenda. SAPs in the restoration program shall be prepared using the UFP-QAPP, AFCEE Restoration Quality Assurance Examples and Guidance, and project DQOs as specified by the restoration team. For work at overseas locations, the SAP shall be prepared to comply with host nation standards and requirements. (CDRL A009)

4.1.5 Construction Quality Plan (CQP)

Prepare a CQP as specified in the TO. (CDRL A010)

4.2 Design Work Plan

Develop a design WP. The design WP shall document the overall management and implementation strategy for design activities. Site-specific aspects of the proposed design WP shall be detailed, and any deviations from the existing or previous Remedial Investigation/Feasibility Study (RI/FS) or pre-design WP shall be highlighted. The design WP must be approved by the CO before proceeding to design. (CDRL A011)

5.0 MANAGEMENT OF CHEMISTRY SERVICES

The Contractor shall be responsible for the quality of all required chemistry services performed. The Contractor shall ensure that all chemistry-related tasks are conducted in accordance with the project-specific WP (x2), as well as host nation analytical standards, methodologies, and regulatory requirements when performing work at overseas locations. The Contractor shall identify a Project Chemist as one of the key personnel in the project WP. The Project Chemist will act as a POC on all chemistry related issues and shall be responsible for ensuring that all DQOs are met.

5.1 Quality Assurance

The Contractor shall develop project specific DQOs consistent with the project's Remedial Action Objectives (RAOs) and designed to ensure data of adequate quality are collected to

support project decisions. DQOs shall be developed in consensus with the restoration project team and in accordance with UFP-QAPP (UFP-QAPP is a set of consensus documents prepared by the Intergovernmental Data Quality Task Force (IDQTF) to provide instructions for preparing Quality Assurance Project Plans for any environmental data collection operation) and USEPA QA/G4, Guidance for the Data Quality Objective Process (most recent version) and documented in the project WP. Minimum QA/QC requirements identified by the current version of the Department of Defense (DoD) Quality Systems Manual shall be incorporated in the UFP-QAPP. The website address for the current version of the QSM will be provided under separate cover at the task order level.

All laboratory services shall be conducted in accordance with the approved project WP. Samples shall not be submitted for analysis until the WP is approved by AFCEE.

The Contractor shall ensure that all requirements specified in the project WP are met. If not met, the Contractor may be required to re-accomplish sampling at the Contractor's expense. The Contractor shall conduct audits, administer an AFCEE-approved performance evaluation sample program, verify and validate data, and perform corrective actions in accordance with the project WP. For all TOs requiring analytical work, the Contractor shall submit a Quarterly Lab Use Report that identifies the contract, delivery order number, the laboratory, the number of samples analyzed, and any QC failures and corrective action, to afcee.td.1@us.af.mil.

5.2 Laboratory Selection

The Contractor shall select a laboratory with analytical capabilities sufficient for the methods specified in the WP and adequate throughput capacity to handle the project's analytical workload during all field activities. The Contractor shall ensure that the selected laboratory is accredited under the DoD Environmental Laboratory Accreditation Program, and meets all host nation (for overseas work locations), state, and federal requirements, including state certification where appropriate.

5.3 Analytical Data Management

The Contractor shall ensure that all hard copy and electronic data deliverables supplied by the laboratory are complete and adequate to support the quality and usability of the data. Raw data packages shall be submitted to AFCEE upon request. Data packages shall meet host nation (for overseas work locations), federal, and state standards and include all information required to re-create the analysis, including correspondence with the laboratory regarding Quality Assurance and Quality Control (QA/QC) exceedances and documentation of corrective actions. (CDRL A012)

PART C – PLANNING SERVICES

The contractor shall provide A-E services in support of facility and installation planning and programming activities. Activities must support and be directly related to or associated with real property activities. Single actions not associated with real property activities will not be accomplished as standalone contract actions under this scope. Planning activities may include those activities necessary to assess and manage environmental implications and conditions of installation activities as well as planning associated with managing real property and real property activities.

6.0 ENVIRONMENTAL PLANNING AND PROGRAMMING

Develop, update, integrate, publish and present environmental planning and programming services as specified in the TO.

6.1 Professional Planning and Programming

Services to be performed include support to establish or sustain environmental programs including documentation to support funding and execution.

6.1.1 Planning Actions

Develop a short-term and long-range plan of action to achieve compliance with the proposed mission, including regulatory and installation EMS requirements to satisfy initiatives necessary to acquire the authority and/or resources to accomplish the mission's planned work. Review available documentation and develop criteria to prioritize requirements, analyze projected environmental projects, provide execution options (funding release dates, obligation schedules and Notice to Proceed milestones), and accomplish other similar recommendations. (CDRLs A001, A013, B002, B003)

6.1.2 Program Management Integration

Develop, present, and publish the installation and headquarters/command level planning, programming and budgeting submissions in support of the military's force structure, associated installation programs, and related projects. Assist with the development of a master schedule to execute AFCEE support programs. (CDRLs A001, A013, B002, B003)

6.1.3 Programming Actions

Review the installation or facility mission, installation environmental policy, and supporting facility development requirements to establish program or project requirements. Prepare and submit all documentation necessary to acquire the authority and resources to accomplish the work. (CDRL A001, A013)

6.1.4 Tracking of Performance Metrics and Quality Performance Indicators

Measure the performance of installations, facilities and major commands in their accomplishment of environmental program goals. Assist in the development of performance

metrics, tracking of data, development of report(s), and recommendation for improvements. (CDRL A001)

6.2 Environmental Baseline Surveys (EBSs)

Review all available information and survey the condition of real property proposed by the Air Force to be acquired, transferred, leased, sold, or otherwise conveyed and provide appropriate documentation.

6.2.1 Phase I Environmental Baseline Surveys

Review items such as historical records, reports, data, environmental surveys, inspection reports, regulatory agency reports, notices of violation or noncompliance, current or discontinued permits, titles, deeds, and other real property records, aerial photographs, and other documents to determine the potential for past/present contamination of real property. (CDRLs A001, A002)

6.2.2 Phase II Environmental Baseline Surveys

Conduct a Phase II EBS as directed. Investigations involve surface, subsurface, groundwater, and aquifer sampling to determine type, concentration, and extent of contamination. (CDRLs A001, A002)

6.2.3 Environmental Suitability Decision Documents

Prepare an Environmental Suitability Decision Document (ESDD) to assist with property transfer as directed in the TO. The document will include a description of the environmental condition of property, category codes, recommendations on property use restrictions, certifications required to transfer property, required covenants, required warrants, photographs, figures, etc. (CDRLs A001, B005)

6.3 Environmental Impact Analysis Process (EIAP)

Support with activities such as the preparation of the Description of the Proposed Action and Alternatives (DOPAA), environmental assessments (EAs), environmental reviews (ERs) for overseas locations, environmental impact statements (EISs), findings of no significant impact (FONSI), Records of Decision (RODs), mitigation plan(s), Socioeconomic Impact Analysis Study (SIAS), and other associated documents. Supplemental activities include support on data identification, collection (including site visits and interviews), development, and interpretation; sampling and analysis; human health risk and environmental impact evaluations and reports; expert testimony; and public meetings and hearings (including scoping meetings). Such activities shall be conducted in context of the installation environmental policy, significant aspects, and EMS.

6.3.1 Description of Proposed Action and Alternatives (DOPAAs)

Prepare, review, or complete DOPAAs. (CDRL A001)

6.3.2 Environmental Assessment (EA) & Findings of No Significant Impact (FONSI)

Prepare EAs and FONSI for specific actions. Activities include obtaining and analyzing data to determine potential environmental impacts, preparing EAs/FONSIs, and coordinating efforts with the appropriate agencies. (CDRL A001)

6.3.3 Environmental Review (ER)

Prepare ERs for activities outside of the United States in accordance with applicable guidance. (CDRL A001)

6.3.4 Environmental Impact Statements (EISs) and Records of Decision (RODs)

Prepare EISs and RODs as specified. Tasks include collection, development, and interpretation of data; analyzing environmental consequences; and meeting support. (CDRL A001)

6.3.5 Socioeconomic Impact Analysis Study (SIAS)

Prepare SIASs in conjunction with base disposal and reuse actions. Obtain and analyze data, and provide national, regional, and local area analysis of socioeconomic factors. (CDRL A001)

6.4 Air Traffic and Airspace Analysis

Obtain, analyze, and summarize available airspace planning data to determine the effect of proposals on current and projected air traffic and airspace utilization, including the feasibility of proposals to use installation(s), range, and low-level-route related airspace for stand-alone and joint-use commercial or general aviation activities. (CDRLs A001, A013)

6.5 Airfield and Airspace Obstruction Analysis

Conduct inventory of objects within or in close proximity to airfield and penetrations or encroachments to the airspace clearance zones and imaginary control surfaces delineated within UFC 3-260-01. (CDRL A001)

6.6 Natural and Cultural Resources

Review, revise, amend, or prepare the report(s) and plan(s) for the resource areas described below. Identify and follow the provisions of all applicable laws and regulations.

6.6.1 Cultural Resources

Obtain and review data, documents, and records relative to the preparation of cultural resource report(s) and management plan(s) covering archaeological (prehistoric), historical, ethnographic, traditional, and paleontology resources on or immediately beyond the boundaries of the facility that might be affected by facility activities. Conduct investigations, field surveys, historical surveys, interviews, and other research to prepare plans to protect these cultural resources. Evaluate applicable resource data against criteria for eligibility for listing on the National Register. Prepare nominations for the National Register. Related to historical resources, prepare Historic American Building Survey/Historic American Engineering Record (HABS/HAER). (CDRLs A001, A002, A013)

6.6.2 Natural Resources

Perform technical activities and analyses in support of requirements to comply with federal, state, host nation and local statutes, rules and regulations. Activities may include but are not limited to collecting and reducing data in support of threatened and endangered species, waters of the United States (WofUS) and other waters of interest to the government, watershed protection, wetlands, floodplains, fish and wildlife resources, forestry and agricultural resources, land management and ecosystem management, grounds maintenance, and coastal zone and marine resources. (CDRLs A001, A002, A013)

6.6.3 Integrated Natural Resource Management Plan (INRMP)

Review data, documents, and records relative to the preparation of natural resource report(s), survey(s), and INRMPs with associated component plans. Cover topics such as threatened and endangered species, waters of the United States (WofUS) and other waters of interest to the government, watershed protection, wetlands, floodplains, fish and wildlife resources, forestry and agricultural resources, land management and ecosystem management, grounds maintenance, and coastal zone and marine resources. (CDRLs A001, A002, A013)

6.6.3.1 Aquatic Resources (WofUS, Wetlands, Watersheds, and Floodplains)

Review existing data and contact appropriate state and federal agency for information on aquatic resources, as needed. Apply the US Army Corps of Engineer's (USACE's) 1987 Wetland Delineation Manual criteria and contact USACE to determine jurisdiction. (CDRLs A001, A013)

6.6.3.2 Bird Aircraft Strike Hazard (BASH)

Provide BASH services including assessments and plans; hazard risk modeling; bird/wildlife management plans and training; radar-based bird-based hazard advisories and surveys; remote sensing of bird and wildlife movements; airfield bird/wildlife surveys; low-level airspace hazard assessments; and bird harassment and/or control services. (CDRLs A001, A002, A013)

6.6.3.3 Coastal Zone Management

Review existing data and contact applicable agencies for requirements within the coastal zone. Determine land use constraints for the installation or facility and prepare the Coastal Zone Consistency Determinations for activities within the coastal zone for compliance with the local Coastal Zone Management Plan. Determine impacts to marine organisms as they pertain to a proposed project/survey and develop management guidelines for protecting the marine resources. (CDRLs A001, A013)

6.6.3.4 Threatened and Endangered Species/Species of Special Concern

Review existing data and contact appropriate agencies and sources for information on species and habitats of importance. Perform surveys concerning listed species, and develop management plans to ensure protection of the species and their habitat. Prepare biological assessments. (CDRLs A001, A002, A013)

6.6.3.5 Natural Resource Damage Assessment (NRDA)

Collect, compile, analyze, and report data using the prescribed methodologies presented in the Department of Interior NRDA Regulations (43 CFR Part 11 or 15 CFR Part 900), with the purpose of supporting NRDA activities or otherwise calculating monetary damages (monetary value of restoration) for injuries (harm, adverse impacts, loss) to natural resources. Develop plans to mitigate or compensate for natural resource damages. (CDRLs A001, A013)

6.7 Noise Management

Provide support with noise management services including noise management and noise and vibration studies. Prepare weapon system noise analysis for environmental studies. Collect, record, and encode aircraft operational data, develop noise contours, and prepare Air Installation Compatible Use Zone (AICUZ) report(s) at selected installations/facilities/site(s). Collect and analyze acoustic and/or vibration data from the survey site(s). (CDRLs A001, A013)

6.8 Permits and Site Access Agreements

Support the identification and procurement of permits and/or access (including off-base easements and leases) agreements to implement a site-specific project. (CDRLs A001, A014)

6.9 Project Environmental and Land Use Plans

Provide support on project environmental, siting, and design considerations in support of decisions on mission realignments; base/mission modifications, explosive safety site approvals, additions and closures; airspace designators, routes and ranges; and other mission support activities required by AF, allied service, and host/supporting nations. (CDRLs A001, A013)

PART D – ENVIRONMENTAL SERVICES

Title I, Title II, and Other A-E services are anticipated for environmental projects, including those related to fuel systems, and incidental UXO remediation. Support for environmental restoration, environmental conservation and planning, environmental quality, and related projects as identified in this SOW. For environmental services, all on-site workers (contractor and subcontractor) performing hazardous operations, including working with hazardous materials, must have completed the OSHA 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) training and/or other applicable training, plus annual refresher courses. Contractors shall also have completed EMS awareness training on an annual basis, covering the installation environmental policy and managed significant aspects. Maintain documentation supporting training records and have the site-specific HSP on site, available for workers and/or regulatory review.

7.0 TITLE I SERVICES FOR ENVIRONMENTAL PROJECTS

7.1 Design Overview

The government shall provide pertinent and available background information concerning the project. The major objective of a design project shall be the complete design of a practical and effective system(s).

Designs specified in Part C of this contract may include new construction, upgrades, maintenance, or repair. Designs shall comply with the installation environmental policy and EMS, and all environmental requirements as specified by any host country, the USEPA, or state environmental agency for the selected site. Designs may be required for projects including environmental issues, fuels, UXO, and force protection. The complete design shall comprise the following.

7.1.1 Cost Estimates

As part of the design, develop a detailed cost estimate for construction and implementation of the project with detailed labor, material, subcontractor, and other costs using an accepted industry standard format (we recommend the current constructions standards institute [CSI] format). Develop life cycle cost estimates for planning and budgeting. These cost estimates shall detail, by fiscal year, the various development, construction, O&M, and LTM costs. (CDRL A015)

7.1.2 Design Plans and Specifications

Develop clear and comprehensive design plan(s) and specifications with a supporting Design Analysis or Basis of Design Report. Include critical information like the design basis, discussion of technical factors, design assumptions, detailed engineering drawings, equipment tables, material tables, permits required, submittal register(s), appendices with data and calculations, and any applicable LEED™ documentation. (CDRLs A001, A002, A015, A016, A017, B002)

7.1.3 Operations and Maintenance Plan

As part of the design effort, develop an Operations and Maintenance (O&M) Plan to cover both implementation and long-term maintenance. The plan shall include documentation for the comprehensive system, not simply for each component. Include information such as the start-up procedures, specifications, description of normal O&M, potential problems, contingencies, description of equipment, routine testing requirements, replacement parts and sources, and other industry standard requirements. (CDRL A013)

7.1.4 Project Schedule

As part of the design effort, develop a project schedule for construction and implementation. (CDRLs B002, B003)

7.2 Environmental Design Reviews

The design and design criteria shall be submitted for review by the government in one or more phases, as specified in the TO. Disposition of the comments shall be determined at the respective review meeting and the results shall be incorporated into the next required design phase submittal. The specific requirements for each design phase shall be specified in the TO. Examples of requirements that might be specified for a phase would include design plans, cost estimates, schedules, Basis of Design Reports, review comments with responses from prior work, design analyses, submittal registers, list of required permits, O&M requirements, calculations, LEED™ documentation, and other similar requirements. (CDRLs A001, A002, A013, A014, A015)

8.0 TITLE II SERVICES FOR ENVIRONMENTAL PROJECTS

8.1 Construction Submittal Review

Review plan(s) and systematic QA procedures. Examples of plan(s) to be reviewed may include, but are not limited to, cost estimates, design plans and specifications, O&M plans, project schedules, all documents associated with design phases, LEED™ analysis, EAP, UFP-QAPP, QPP, HSP, and SAP as applicable to the TO. These plans should be reviewed against current guidance. Prepare and submit an evaluation of the project-specific plan(s). Perform RFI tracking, provide initial input for the COR on RFIs, and close out RFI responses based upon COR feedback. (CDRL A001)

8.2 Design Update

Maintain and update the design documents during construction. This is required to incorporate any changes to the design made during the construction phase to correct design deficiencies, incorporate new technologies, or adapt to previously unknown conditions. (CDRLs A001, A002, A015, A016, A017, B002)

8.3 Evaluation of Ongoing Actions

Perform on-site technical surveillance of field operations being performed by others, provide integrated management oversight and technical assessment of ongoing fieldwork, and ensure

conformance with the selected remedies and regulatory requirements, and installation policy and EMS. Provide an evaluation to ensure that remedies are performing as designed. (CDRL A001)

8.4 Field Oversight

Provide manpower, equipment, material, services, and transportation necessary for oversight services during the construction and operation of the project. Provide independent review and summary of actual versus scheduled status for real time review by the COR and periodic progress reports summarizing the work efforts and any open items requiring AFCEE resolution. Meet and follow the site-specific HSP. (CDRL A001, A018)

8.5 Inspections

Conduct routine, pre-final, and final walk-through inspections of the project. Daily reports, if required, should use a bound log book such as AF Form 1477. All information required by AF Form 1477 shall be annotated daily and each day's entry shall be signed by the inspector and submitted to the COR twice per week.

The pre-final inspection of the completed project shall involve the CO (or his/her designee), regulatory agencies, and other agencies with a jurisdictional interest. Document the pre-final inspection findings in a pre-final inspection report.

The pre-final inspection report shall be used as a checklist for focusing the final inspection on deficient construction items. Document the findings of the final inspection in a final inspection report according to the format specified at the pre-construction conference. The final inspection report shall certify that all items of the design have been implemented and that the project is complete and operational. The final inspection report shall include a record of as-built drawings and documentation (e.g., test results) verifying that performance standards have been met. (CDRLs A001, A017)

8.6 Submittal Register Review

Review construction submittals to ensure compliance with the Submittal Register prepared during design. Assist the COR by identifying discrepancies and recommending resolution. (CDRL A001)

8.7 Treatment, Storage, and Disposal Facility Audits

Evaluate the acceptability of potential treatment, storage, and disposal (TSD) facilities for compliance with all applicable local, state, and federal requirements. (CDRL A001)

9.0 OTHER ENVIRONMENTAL A-E SERVICES

Provide all labor, materials, and services necessary to deliver, for government review and approval, those studies and services that support environmental programs and projects at locations of interest to the government. Multidisciplinary technical capabilities may be required. The Contractor shall perform tasks, including but not limited to, the following general tasks related to the specific work areas cited in this section.

- a) General technical support
- b) Document reviews
- c) Technical evaluations of responses to solicitations
- d) Permit applications, coordination, negotiation
- e) Emissions characterization
- f) Completion of inventories
- g) Identification of relevant regulations
- h) Environmental Management System (EMS)
- i) Compliance assessments and plans
- j) Development of policy and regulations, handbooks, tutorials, and pamphlets
- k) Preparation of pollution prevention strategies
- l) Evaluations of records
- m) Evaluations of reporting processes
- n) Modeling using computer codes (e.g., MODFLOW, VLEACH)
- o) Preparation of implementation plans
- p) Technology reviews
- q) Completion of cost and feasibility studies
- r) Risk management planning
- s) Training support
- t) Audit support
- u) Meeting support and/or facilitation
- v) Program management support
- w) Programming
- x) Safety evaluations
- y) Project and program level scoping studies
- z) Technical investigations and/or evaluations
- aa) Value engineering services
- bb) Inspection and field oversight
- cc) Optimizing environmental monitoring, containment and remediation systems
- dd) Annual report support

In the completion of these tasks, the Contractor shall comply with all federal, state, host nation, and local rules and regulations. The contractor shall conduct all activities within the context of the installation environmental policy and EMS, in accordance with AFI 32-7001 and in support of Executive Order (EO) 13514.

9.1 Air Quality

Perform technical activities and analyses in support of requirements to comply with federal, state, host nation and local air quality rules and regulations. Activities may include but are not limited to conducting air emissions inventories; performing compliance assessments; preparing permit applications; evaluating pollution prevention strategies; providing pollution control technology support; conducting stack sampling and analysis; preparing new source reviews; evaluating the impact to proposed air quality legislation; assisting with emission reduction credits; conducting general conformity applicability analysis; conducting general conformity

determinations; collecting and analyzing stationary and mobile source data; conducting air quality modeling using commercially regulator-approved models; preparing implementation plans for reducing air pollution; analyzing pollution control technologies; preparing feasibility studies; developing risk management plans for chemical accidental release; monitoring and characterizing air emissions; preparing ozone depleting substance management plans; and reporting, permitting, and completing other air studies and plans. (CDRLs A001, A013)

9.2 Community Involvement

Support Community Involvement programs including support on meetings, media relations, risk communication, strategic planning, information repositories, government relation activities, advisory boards, outreach activities, fact sheets, poster boards, websites, training, and strategic planning. Prepare plan(s) including, but not limited to, the Community Relations Plan (CRP) in accordance with the Office of Solid Waste and Emergency Response (OSWER) Directive 9230.0-3B. (CDRLs A001, A013, A019, B007, B008, B009)

9.3 Environmental Management

9.3.1 Assistance and Evaluation Teams

Conduct technical evaluations of environmental, facility management, infrastructure, and construction activities and assist in the development of plans to rectify environmental deficiencies or areas of concern. For example, complete assessments of base compliance or restoration programs, optimization studies of environmental monitoring, containment, and remediation systems, evaluations of base activities and infrastructure, and forensic engineering evaluations. Technical evaluations shall be conducted using an EMS approach, within context of AFI 32-7001 which is based on ISO 14001. (CDRLs A001, A013)

9.3.2 Environmental Information Materials

Prepare, revise and update environmental information materials in paper and electronic form, including World Wide Web publication. (CDRL A001)

9.3.3 Environmental Mitigation Credits

Provide support for the purchase, exchange, and management of environmental abatement credits for different media.

9.3.4 Environmental Education and Training

Support environmental management, engineering, and science technology, including the development of training materials, curriculum, and testing methods to develop and maintain professional orientation and expertise. Analyze existing training programs, evaluate effectiveness, and recommend and implement strategies for improvement. (CDRLs A001, B007, B008)

9.4 Environmental Restoration

9.4.1 Preliminary Assessment/Site Inspection (PA/SI) or RCRA Facility Assessment (RFA)

Conduct the PA/SI or RFA to define the project setting at a specified location. Identify, document, and report preliminary assessment of the site condition, restraints, local environmental conditions and contamination, and potential mechanisms for contamination migration. (CDRL A001)

9.4.1.1 Preliminary Assessment or RCRA Facility Assessment

Conduct a literature search to define the installation or facility project setting and to identify potential project conditions, site(s), and resources to include the possibility of encountering Resource Conservation and Recovery Act (RCRA)-listed wastes or UXO. The purpose of this effort is to develop a Conceptual Site Model (CSM) for each location, present summary hypotheses regarding the local conditions, potential project alternatives, and their potential impact on sensitive site conditions. (CDRL A001)

9.4.1.2 Site Inspection or RCRA Facility Assessment

Visit the installation or facility to ensure a complete understanding of site conditions with COR concurrence. Visit and inspect site(s) identified in the PA or RFA Report. The SI Report shall include the results of investigations and recommendations for additional work or no further action (NFA). (CDRL A001)

9.4.2 Remedial Investigation (RI) or RCRA Facility Investigation (RFI)

Conduct an RI or RFI as specified in this task order.

9.4.2.1 Remedial Investigation or RCRA Facility Investigation Report

Prepare RI or RFI Reports that characterize environmental conditions, define the nature and extent of contamination, and quantitatively estimate the risk to human health and the environment at various site(s) through the collection of geologic, geophysical, hydrogeological, ecological, chemical, physical and hydrologic data, as well as appropriate environmental samples. (CDRL A001)

9.4.2.2 Project Baseline Risk Assessment

Evaluate the project risk to the public's health and to the environment for each site using validated data supported by acceptable QA/QC results, the site's conceptual model, and the Chemical and Site-Specific Risk Analysis (CSSRA). (CDRL A001)

9.4.2.3 Conceptual Site Model (CSM)

Develop or refine the CSM for each site using validated data (preferably) or unvalidated data of sufficient quality to the CO supported by acceptable QA/QC results and site characterization information. The primary purpose of the CSM is to aid in identifying exposure pathways by which populations may be exposed to contaminants. (CDRL A001)

9.4.3 Feasibility Study (FS) or Corrective Measures Study (CMS)

Complete the FS or CMS utilizing information from the RI or RFI and the baseline risk assessment. In the FS or CMS, develop and evaluate remedial action alternatives for each site where identified risks to human health and/or the environment exceed acceptable levels negotiated by the government and regulatory agencies. (CDRL A001)

9.4.3.1 Alternatives Development

Establish project objectives and goals for promoting human and environmental balance. These objectives and goals shall be determined based on identified applicable or relevant and appropriate requirements (ARARs). Identify general project actions, applicable technologies, and combine project/mission/installation technologies that formulate distinct project development alternatives. Identify alternatives that eliminate, control, and reduce project risk. (CDRL A001)

9.4.3.2 Alternatives Analysis

Conduct a detailed analysis of each alternative selected and identified in the Initial Screening of Alternatives (ISA) report. (CDRL A001)

9.4.4 Informal Technical Information Reports (ITIRs)

Support the development of ITIRs to include Analytical Data Reports, Accelerated Remediation Project Definition, and Site Characterization Summaries. (CDRL A001, A012)

9.4.4.1 Analytical Data Report

Provide an Analytical Data Report that includes, but is not limited to, the project requirements, identification of the UFP-QAPP used, analytical results, QC results, cross-reference tables, chain-of-custody documents, verification/validation reports, usability report(s), the case narrative(s), approved variances, project communication and raw data as specified in the TO. The QC data shall be submitted on the AFCEE QAPP or equivalent forms as specified in the TO. (CDRL A012)

9.4.4.2 Accelerated Remediation Project Definition ITIR

For those site(s) identified during this effort as candidates for accelerated remediation, prepare a Project Definition ITIR. (CDRL A001)

9.4.4.3 Site Characterization Summary ITIR - (SCS-ITIR)

Prepare SCS ITIRs to serve as core documents for the RI report(s). (CDRL A001)

9.4.5 Proposed Plans (PPs), Records of Decisions, Decision Documents (DDs), and No Further Remedial Action Planned (NFRAPs)

Prepare the PP(s), DD(s), NFRAP(s) and ROD(s) using the format in OSWER 9200.1-23P and latest AF guidance for NFRAP preparation. The PP shall be prepared utilizing a format approved by the COR. Once the PP is distributed to the public and comments are obtained, prepare a responsiveness summary report. The DD shall contain the responsiveness summary report. (CDRLs A001, A013)

9.4.6 Engineering Evaluation/Cost Analysis (EE/CA)

Prepare the EE/CA as part of Action Memorandum DDs. The EE/CA shall evaluate possible alternative technologies for removal actions for remediation of an immediate or long-term threat at a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site. An EE/CA is required by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for any removal action that is determined to be non-time critical. (CDRL A001)

9.4.7 Remedial Process Optimization (RPO)

Perform all studies to monitor and evaluate the remedial process to plan, design and implement RPO to ensure the effectiveness and efficiency of the remedial process through feedback of information into the decision process. (CDRLs A001, A013)

9.4.7.1 Remedial Process Evaluation

Develop 5-year reviews of remedial action RODs and demonstrations of remedial actions operating properly and successfully. (CDRL A001)

9.4.7.2 RPO Scoping Visit

Conduct base-wide assessments to identify opportunities to implement the RPO strategies. (CDRL A001)

9.4.7.3 Evaluation of Remedial Systems and Environmental Equipment

Conduct independent evaluation of remedial systems to determine their effectiveness. (CDRL A001)

9.4.7.4 Monitoring Optimization

Evaluate monitoring programs and plan/design optimization of environmental monitoring programs in accordance with the AFCEE LTM guidance and site- and project-specific DQOs. Perform temporal and spatial analysis of monitoring data using statistical and geostatistical software and/or qualitative approaches. Identify essential sampling locations, determine optimal sampling frequencies, and reduce/eliminate redundant monitoring efforts. (CDRL A001, A013)

9.4.8 Treatability Studies, Pilot Tests, Bench Scale Tests, IRAs

Conduct treatability studies, pilot tests, and/or bench-scale tests to determine optimum methods of contaminant delineation, removal of contaminants, and the degree of treatment anticipated using various processes. IRAs may be required on a limited basis. Perform IRAs as required to reduce or eliminate an immediate threat to human health or the environment. (CDRL A001)

9.4.9 Management Action Plans (MAPs)

Perform comprehensive development, analysis, and planning in support of installation, customer, and major command programs and plan(s) for all environmental programs including pollution prevention, compliance, planning and restoration. Complete MAPs to incorporate all projects in a program, perform timeline and program forecast development, and establish tools to track the progress of base-level environmental programs. (CDRLs A001, A013)

9.4.10 Peer Review

Prepare peer review package(s). Include information to support the project requirement, technology selected, costs, funding timeline, and other project data to support the work identified. (CDRL A001)

9.4.11 Warranty of Installed Environmental Restoration Equipment and Systems

Assist the government in resolving warranty issues. Review installed equipment and prepare databases of equipment/systems with information such as scheduled maintenance, vendor sources, and warranty expiration dates. (CDRL A001)

9.5 Hazardous Material and Hazardous Waste Management

Support the Hazardous Material and Hazardous Waste Management program related to integrated solid waste, medical waste, pesticides, polychlorinated biphenyls (PCBs), asbestos, radon and related products, investigation-derived waste, lead-based paint, lead, and other hazardous materials and wastes. Provide support including, but not limited to, analyses, regulatory reviews, regulatory interface assistance, licensing assistance, recycling, surveys, education, material tracking, identification, inventories, plan preparation, emergency preparedness studies, form preparation, EMS and compliance auditing, reduction assessments, report preparation, certifications, testing (including storage tanks), development of health and safety plans for handling hazardous materials and hazardous wastes, record searches, documentations of actions, inspections, and other related activities. (CDRLs A001, A002, A008, A013)

9.6 Low Level Radionuclides

Support background determinations, in-situ sampling, and sampling of excavated materials in accordance with established regulations and federal standards for radionuclide cleanup, such as the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) and the MARSSIM Laboratory Manual. Submit a report of findings outlining the site conditions, selected methods of remediation, and associated costs. (CDRL A001)

9.7 Monitoring and Operations

Provide monitoring and operations optimization services for the discrete measuring, sampling and analysis of groundwater, surface water, influent/effluent, air emissions, operational noise, soils, hazardous waste, hazardous materials, and other environmental media as specified in each TO. May include development through implementation of site-specific plan(s) including negotiations with administrators/regulators and adherence to project DQOs. (CDRL A001, A013)

9.7.1 Deployed Environmental Surveillance

Perform technical activities and analyses in support of requirements to analyze and track occupational and environmental health hazards at deployed sites to ensure a fit and healthy war fighter. Activities include, but are not limited to, providing consulting and field services to deployed troops in the areas of environmental health site assessments, ambient air monitoring,

trend analysis of environmental and health deployment data, and research on existing and emerging health threats. (CDRL A001)

9.7.2 Long-term Monitoring (LTM) and Remedial-Action Operations (RAO)

Support optimization of LTM programs in accordance with AFCEE LTM and RPO Guidance as well as program specific DQOs. Evaluate monitoring programs and plan/design optimization of environmental monitoring programs in accordance with the AFCEE LTM guidance and site- and project-specific DQOs. Assess data, propose updates, assist in negotiations, establish/implement RAO plans, operate systems, implement tests, and develop O&M manuals and standard operating procedures. (CDRLs A001, A013)

9.7.3 Monitoring Well Installation, Upgrades, Treatment, Testing, Repairs, and Abandonment

Install monitoring wells, upgrade existing wells, and perform well rehabilitation. Test, repair, and properly close and abandon existing wells as required by the TO. (CDRLs A001, A013)

9.8 Environmental Management System (EMS) Conformance for Compliance and Pollution Prevention

9.8.1 Environmental Management System (EMS)

As requested by the government, the Contractor shall assist with the maintenance and improvement of the installation's Environmental Management System (EMS). Tasks related to this requirement may include, but are not limited to the following: developing and conducting EMS and other environmental compliance training; developing EMS policies and guidance documents that may include specific compliance procedures (such as management plans or checklists); assisting with updating and reviewing the installations environmental aspects and impacts registry; assisting with the development of environmental objectives and targets to achieve desired environmental program initiatives; reviewing environmental performance measures; conducting EMS (which may be in conjunction with ESOHCAMP) audits and providing EMS audit reports; facilitating the improvement of the overall EMS by identifying areas of opportunity where an integrative, holistic, enterprise approach to managing environmental requirements; identifying opportunities for pollution prevention (P2); and maintaining data-management/information resources utilized by environmental program managers to maintain the EMS. Deliverables are to follow AFI 32-7001 and the EMS Playbook. (CDRL A001, A013, B007)

9.8.2 Compliance

Provide services to support the analysis, design, construction, operations, and maintenance of facilities, equipment, material, and processes related to ensuring compliance with environmental regulations. Services shall be conducted within the context of the installation environmental policy and EMS. (CDRL A001)

9.8.3 Pollution Prevention

Provide services to support the analysis, design, construction, operation, and maintenance of facilities, equipment, material, and processes to implement the P2 program. Perform technical

activities and analyses in support of requirements to develop pollution prevention baselines, pollution prevention plans, inventory and characterize hazardous materials and municipal solid waste streams. Perform P2 opportunity assessments; analyze the economics, environmental and health considerations, and technical feasibility of chemical substitutes, process changes, and recycling alternatives. Evaluate and recommend innovative technologies for P2; create databases to track progress in achieving each stated Air Force environmental goal; and perform other P2 studies and consultations. Recommend and integrate P2 solutions as part of installation Environmental Action Plans (EAPs), incorporating P2 into the installation EMS approach. (CDRLs A001, A013)

9.8.4 Environmental Management Systems Conformance Integrates Compliance and Pollution Prevention (P2)

Provide technical activities, analyses, and plan development in support of EMS to ensure environmental compliance and the implementation of P2. Support the integration of EMS and subsequent P2 and environmental compliance programs to installations, facilities, major commands, and headquarters as specified. Develop programming guidance and analyze and recommend improvement strategies for integrating EMS, compliance, and P2. Perform services necessary to implement, update and support EMS to include compliance and P2. Conduct compliance site inventories and support tracking of these inventories. Assist in the relative ranking and prioritization of significant aspect(s) by performing Operational Risk Management (ORM) and cost analysis to determine the compliance burden. Through EMS, reduce or eliminate the compliance burden through P2 solutions and alternatives by addressing compliance site(s) and/or the processes. Examples of tasks include performance of cost and feasibility analysis to recommend solutions, development of EAPs to manage significant aspects, assistance in development of technical planning through programming, and submittal of reports. (CDRLs A001, A013)

9.8.4.1 Compliance Assurance and Pollution Prevention (CAPP)

Perform services necessary to implement, update and support the CAPP program. Conduct compliance site inventories and develop/support database tracking of these inventories. Assist in the relative ranking and prioritization of compliance site(s) by performing Operational Risk Management (ORM) and cost analysis to determine the compliance burden. (CDRL A001)

9.8.4.2 Compliance through Pollution Prevention (CTP2)

Reduce or eliminate the compliance burden through P2 solutions and alternatives by addressing compliance site(s) and/or the processes. Examples of tasks include performance of cost and feasibility analysis to recommend solutions, assistance in development of technical planning through programming, and submittal of reports. (CDRLs A001, A013)

9.8.5 Sustainable Infrastructure and Operations

In support of Executive Order (EO) 13423, the Contractor shall identify, evaluate, design, and prototype processes, equipment, and facilities that reduce hazardous material use, minimize the generation of hazardous wastes, minimize or eliminate the use of materials, or improve environmental quality. Recommend ways to make projects more environmentally sustainable. Apply the federal sustainability requirements and LEEDTM rating system criteria to facility

construction and renovation projects. Review operations and recommend sustainable alternatives. (CDRLs A001, A013)

9.8.6 Resource Conservation

Conduct surveys, pilot studies, and assessments leading to cost effective energy and water conservation and assistance in meeting mandated deadlines in implementing energy and water use minimization programs. (CDRLs A001, A002, A013)

9.8.7 Treatability Studies for Compliance Programs

Conduct treatability studies to determine optimum methods of contaminant delineation, removal of contaminants, and the degree of treatment anticipated using various processes. (CDRL A001)

9.9 Record Keeping and Reporting

Support with information repositories and administrative records. Provide an information repository of documents applicable to the accomplishment of the TOs and maintain a database of pending deliverables, the corresponding CDRLs, and an on-line inventory of data management processes to ensure compliance with applicable regulations and AFCEE requirements. Prepare, compile, and maintain an administrative record containing pertinent information regarding project decisions. (CDRL A001)

9.10 Risk Assessments

Support with the development of Human Health Risk Assessments (HHRAs) and Ecological Risk Assessments (ERAs).

9.10.1 Human Health Risk Assessment

Complete HHRA as specified and submit Risk Screening Analyses (RSAs) and/or Full Risk Assessments (FRAs). Perform Risk Evaluation Preliminary Remediation Goals and submit a Risk Evaluation of Remedial Alternatives in conformance with regulatory guidance. Perform technical activities and analyses in support of risk assessment requirements to comply with federal, state, and local rules and regulations. Provide risk analyses for environmental, safety and health data using scientific and engineering expertise and risk assessment tools including risk management options and tradeoff analyses. These activities may include conducting and reviewing studies of community health concerns, evaluating current and historical on-site and off-site contamination data, and conducting pathway analyses. Conduct toxicological evaluations through literature and regulatory reviews. The review shall incorporate the past and present regulatory guidance with available risk related data. Based on risk assessment guidance outcome, develop and perform special toxicological studies, possibly at other representative locations, to evaluate the study site's impact on health. (CDRL A001)

9.10.2 Ecological Risk Assessment (ERA)

Complete ERA as specified to comply with federal, state, and local rules and regulations. Review data and make recommendations for an initial or scoping ERA to document actual/potential effects of contaminants on protected wildlife species, habitats, or environments. Define the extent of contamination, evaluate the ecological effects of remedial alternatives, and

develop the remediation criteria to conform to guidance following the three tiers in logical order. These activities may include rapid bioassessments (aquatic and benthic enumeration and diversity studies); fish kill investigations; Toxicity Reduction Evaluations (TREs), Toxicity Identification Evaluations (TIEs); ecological and risk assessment studies; particulate analysis of groundwater; evaluation of the effect of pollutants on ecosystems; sludge pathogen testing; and other microbiological studies. (CDRLs A001, A002)

9.11 Storage Tank Management

9.11.1 Petroleum, Oils, and Lubricants (POL) and Other Storage Tank Management

Perform technical activities and analyses in support of the management of POL fuel systems. Assessments must comply with American Petroleum Institute (API), STI, and UFC 3-460-01 specifications as applicable. Other activities to support non-POL storage tanks as specified. (CDRLs A001, A013)

9.12 Technology (Demonstration) Evaluation

Evaluate cost, performance, and applicability of methods (field/lab) and technologies for projects and provide alternative approaches and technologies considering cost, schedule, human health, the environment, public acceptance, and technical risk.

9.12.1 Commercial and Emerging Technologies

Evaluate commercially available, emerging technologies, and other project enhancement technologies. Survey and analyze cost and performance data on new and/or innovative project approaches that concern the adoption of these designs. Audit the performance of new technologies used in related efforts. (CDRL A001)

9.12.2 Initial Methodologies

Develop initial methodologies and follow-on execution programs for on-site auditing of industry laboratory and field operations, post-installation or post-remediation monitoring, site closure plan(s), and life cycle cost analysis of compliance, pollution prevention, and remediation technologies. Analyze experimental designs and provide recommendations concerning adoption of these designs. Audit the performance of new technologies. (CDRLs A001, A013)

9.13 Unexploded Ordnance (UXO)

Provide support to evaluate, investigate, and plan for the remediation of UXO sites. Major activities include Department of Defense Explosives Safety Board (DDESB) submittals and UXO assessment and identification, and UXO removal and clearance activities. (CDRLs A001, A013)

9.14 Water Quality

Perform technical activities and analyses in support of requirements to bring facility(ies) in compliance with drinking water, storm water, and wastewater statutes, rules, and regulations.

9.14.1 Drinking Water

Perform technical activities and analyses in support of requirements to comply with federal, state, host nation, and local drinking water statutes, rules and regulations and provide potable drinking water to military installations. Activities may include, but are not limited to, the performance of vulnerability assessments; corrosion control analysis; sanitary surveys; drinking water management surveys; public water system compliance strategies and enforcement root cause analysis; cross connection surveys; hydraulic analysis; wellhead protection; disinfection and treatment procedures; maintenance; contamination surveys; distribution system and plant operation studies; database entry and management; training base personnel; and analysis of the efficacy of water treatment and alternatives. (CDRLs A001, A013)

9.14.2 Wastewater

Perform technical activities and analyses in support of requirements to comply with federal, state, host nation, and local water statutes, rules and regulations. Activities may include but are not limited to collecting and reducing data in support of National Pollution Discharge Elimination System (NPDES) and other wastewater discharge permit applications; stormwater plans; evaluating influent and effluent waste streams; development of best management and standard industry wastewater and stormwater practices; identifying, analyzing and modeling surface water quality; and providing studies to improve industrial and wastewater treatment collection systems and plant operation. (CDRLs A001, A013)

10.0 OTHER SERVICES

10.1 Technical Investigation

Provide services such as field and topographic surveys, utility location and capacity analysis, toxic and hazardous material surveys, and geotechnical investigations incidental to the primary environmental project. Perform field investigations and research necessary to ascertain all existing conditions affecting the design and project construction. Obtain an excavation permit (AF Form 103), from the local Civil Engineer prior to any excavation or drilling in connection with a design project. Follow all local rules and coordination requirements necessary to obtain this permit including coordination within the Civil Engineer organization. After the required information and other study/design support data have been obtained, submit a Technical Field Investigation and Survey Report for record purposes and for use in Design Services work. (CDRL A001, A002)

10.2 Graphics Support

Provide graphic design, production and printing oversight of various items in support of various Air Force activities, such as the General Thomas D. White Environmental Awards, and various training workshops and conferences. (CDRL B005)

10.3 Publication Development and Production

Provide research, production (text, graphics and/or photographic designs), and web site and/or hardcopy development for various Air Force publications. These may include Architectural Compatibility Guides, design guides, Uniform Facility Criteria documents, and general web site development. (CDRL B005, B007)

10.4 Claims, Dispute Resolution, and Litigation

Act as a consultant, witness, or litigation-support contractor, as the Air Force may require, when there is a dispute (assisting with claims, complaints, demands, or requests for equitable adjustment, for example). Review claims from, or assists in pursuing Government claims against, any other the construction contractor. Render any assistance that the Air Force may require, including furnishing reports with supporting information necessary to resolve the dispute or defend against the claim; assisting in preparing and assembling the appeal file; participating in meetings or negotiations with the claimant; appearing at depositions, appearing before the Board of Contract Appeals or court of law; and providing other appropriate assistance. (CDRL A001)

11.0 GOVERNMENT POINTS OF CONTACT

Government POC shall be specified in the individual TO or provided under separate cover.